## The Scientific Revolution

<u>Background</u>: During and after the Renaissance, generations of men and women began to look at the world around them with a renewed inquisitiveness. No longer willing to accept the conclusions of classical scholars or the teachings of the church, individual scientists pursued problems in mathematics, astronomy, physics, biology, medicine, and chemistry. Through careful observation and experimentation, these researchers amassed a body of sound, empirically proven knowledge that forms the basis of modern science.

<u>Task:</u> You have been assigned an individual scientist, philosopher, physician, biologist, chemists, or physicists from the Scientific Revolution. I want you to present to the class a "micro-teaching lesson" on your assigned individual. In general, you will be in the library for three days where you will gather, collect and outline research about your scientist. You are to only use the academic sources from the library's data base and/or books from the library. From these sources, you will collect personal background information on your scientist, gather and prioritize key accomplishments from his life's work, collect an example of primary source historical evidence, and produce a short Power Point presentation. You will be graded on the quality of your lesson, the Power Point presentation, and your primary source evidence.

#### Power Point Presentation:

- ❖ Slide #1:
  - ➤ Large high resolution image of the scientist
  - > Scientist's name and primary area of science he studied (i.e., medicine, astronomy, chemistry, physics, etc.)
  - Your name, my name, the class, and the period you take the class.
- ❖ Slide #2: Biographical Information
  - > Date and year of birth and death
  - > Residence and citizenship
  - List all the scientist's fields of study (some might have several)

- Slide #3: Early years up to his formal education
  - > Year and where he was born
  - > Parents and their occumpation
  - Childhood years where he lived
  - When he developed an interest in science
  - > Any anecdotal information you think might be interesting

#### ❖ Slide #4: Education

- > Where he studied
- > Any degrees he earned
- Primary academic area of interest

### ❖ Slide #5 – 7 (if needed): Achievements

- List and describe what your scientist's theories, accomplishments or discoveries
- List his most important books, papers, theories and theorems
- > Be very specific and use details from your research
- Provide images of his accomplishments, discoveries, or theories
- > This is the "meat and potatoes" of the presentation. Be ready to discuss in detail

#### ❖ Slide #8: Significance of the scientist's achievements

> Explain why the achievements, theories and discoveries were and are still important today.

#### Slide #9 through 13: Images

- > Provide slides with high resolution images, paintings, drawings, photographs, etc.
- No more than five individual slides and no less than three.
- > These images need to be the invention itself, a depiction of the theory or formula, or a consequence of the invention or discovery.

#### Slide #14: Sources Cited

- > Using MLA format, cite all your academic sources.
- You cannot cite Wikipedia or Google
- ❖ You are to provide an example of a primary source document which supports your presentation. This can be a letter written by your scientists, an actual image of a formula, a drawing made by the scientists or an excerpt from a book or academic paper.

# **Assignments**

Field	Scientist	2 <sup>nd</sup> Period	4 <sup>th</sup> Period
Astronomy:	Nicolaus Copernicus	Ryan	Peter
	Johannes Kepler	Jordan	Kadijah
	Tycho Brahe	Meg	David
	Galileo Galilei	Steph	Zack
Scientific Philosophers:	Sir Francis Bacon	David B	Catherine
	Rene Descartes	David R	Tim
Scientific Instruments:	Zacharias Janssen	Tom	Jen
	Anton van Leeuwenhoek	Brendan	Andrew
	Gabriel Fahrenheit	Alexa	Ed
	Anders Celsius	Dan	Connor
	Evangelista Torricelli	Eli'el	Paxton
Medicine & the Human	Andreas Vesalius	Matt	Eric
Body	Edward Jenner	Emily D	Connor
	William Harvey	Gabe	Shannon
Chemistry	Antoine Lavoisier	Ed	Lauren
	Robert Boyle	David Mc	Josh
	Henry Cavendish	Min	Brooke
	Joseph Priestly	Ari	Jayni
Physics & Math:	Sir Isaac Newton	Phil	Colby
	William Gilbert	Sung	Kenna
	Otto von Guericke	Bryan	Sang
	Chritian Huygens	Emily	
	Gottfried Leibniz		
	Robert Hooke	Andrew	